

**Notice of Allowability**

Application No.

10/696,811

Examiner

Hai L. Nguyen

Applicant(s)

KEITHLEY ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the phone conversation with Applicants' attorney on 05/24/2007.
2. ☒ The allowed claim(s) is/are 1-3 and 5-7.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment received on 3/07/2007 has been reviewed and considered with the following results:

As to the objection to the drawings, Applicant's revision of the drawings has overcome the objection, as such; the objection has been withdrawn.

As to the rejections to the claims, under 35 U.S.C. 112, 1<sup>st</sup> paragraph, Applicant's amendment and argument have overcome the rejections, as such; the rejections have been withdrawn.

As to the rejection to the claim 7, under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, Applicant's amendment has overcome the rejections, as such; the rejections have been withdrawn.

As to the prior art rejections to the claims made in the previous Office Action mailed on 12/14/2006. Applicant's amendment and Examiner's amendment have overcome the rejections, as such; the rejections have been withdrawn. Therefore the case is found to be in allowance condition for the reasons as set for below.

## **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicants' attorney, Mr. Michael J. Tempel, on 5/24/2007.

The application has been amended as follows:

***In the claims***

Claim 1, on line 4, after "a constant frequency output"; --, wherein the frequency synthesizer comprises a predictor, generating a first output signal indicative of the average number of dithered periods to remove per dithered period; a corrector receiving the first output signal, generating a second output signal indicative of the fractional number of dithered periods to remove each dithered period; and an accumulator receiving the second output signal, operative to count the fractional number of dithered periods, removing a dithered period when an integer has been reached -- has been added;

Claim 4 has been cancelled;

Claim 7, on line 1, " , as defined in claim 1, "; has been changed to -- comprising: a reference signal; a frequency synthesizer, receiving a dithered signal and the reference signal, generating a constant frequency output; and configuration registers transceiving data and control signals with the frequency synthesizer, wherein --;

Claims 8-13 have been cancelled.

**REASON FOR ALLOWANCE**

3. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to disclose or fairly suggest a circuit, as recited in claim 1, having a very specific structural limitation such as the frequency synthesizer comprises a

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predictor, generating a first output signal indicative of the average number of dithered periods to remove per dithered period; a corrector receiving the first output signal, generating a second output signal indicative of the fractional number of dithered periods to remove each dithered period; and an accumulator receiving the second output signal, operative to count the fractional number of dithered periods, removing a dithered period when an integer has been reached, and being configured in combination with the rest of the limitations of the base claims and any intervening claims.

The prior art of record fails to disclose or fairly suggest a circuit, as recited in claim 7, having a very specific structural limitation such as the frequency synthesizer including a first synchronizer, receiving a system clock as the reference signal and a PLL output as the dithered signal, and generating a first output; an edge detector coupled to the first synchronizer to receive the first output and the PLL output, and generating an edge signal; a second synchronizer adapted to receive an enable signal and the PLL output and generating a second output; an adder configured to receive reference count signals and generating adder output signals; an expected count latch coupled to the second synchronizer to receive the second output as a clear input, receiving the PLL output as a clock input, output signals from the adder as data, and the edge signal as a toad signal, and generating a latch output; wherein the adder further receives the latch output; an edge counter coupled to the second synchronizer, the edge counter receives the PLL output and the second output as a clear signal and generates a counter output; a comparator coupled to the edge counter and the expected count latch and, receives the counter output and the latch output and generates a rollover output, an  $A > B + 1$  signal, and an  $A > B$  signal and; logic to receive the rollover output, the  $A > B + 1$  signal and the  $A > B$  signal to develop the constant

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frequency signal, and being configured in combination with the rest of the limitations of the base claims and any intervening claims.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HLN   
May 25, 2007

  
Kenneth B. Wells  
Primary Examiner